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ABSTRACT

This document analyzes two seminars called "Personnel--Human Resources Development" and "Emergence of Vocational, Technnical, and Occupational (VTO) Education in the field-based higher education doctoral program at Nova University. It also includes conclusions drawn from the 6 years those seminars have been in use and comments on the preparation of leaders who can think strategically about transforming contemporary traditional establishments into ones appropriate for an advanced technological era. The first section describes Nova University's nontraditional graduate programs. The second section describes the vocational, technical, and occupational program, including the specialization seminar called the Emergence of Vocational and Technical Education in America, and displays a graphic depiction of multiyear vocational, technical, and occupational education. The third section describes the Higher Education Director's Team formed in 1987 to evaluate the university's programs in higher education. Section 4 describes "Personnel--Human Resources Development" (1988) and section 5 describes "Emergence--VTO Education" (1989). Section 6 analyzes the output and impact of the seminars. The last section offers conclusions. A three-page bibliography and three appendices of strategic planning information conclude the document. (CML)

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TOWARD THE 21ST CENTURY: PREPARING STRATEGIC THINKERS IN VOCATIONAL, TECHNICAL, AND OCCUPATIONAL EDUCATION

by
Warren H. Groff, Ed.D.

Abstract

The ultimate goal of graduate education is to design programs of preparation to promote improvement in the quality of education and training services that are provided in a variety of different contexts. In the late 1960s, Nova University developed a field-based doctoral program as a strategy to prepare individuals to become agents of change in the contexts in which they work.

The Programs in Higher Education developed field-based doctoral programs in (1) higher education; (2) adult education; and (3) vocational, technical, and occupational education. During the 1980s, the Programs for Higher Education critically analyzed the format for the delivery of the specialization seminars for the three above-named programs. A new format was designed and implemented for specialization seminars in these three programs. the new format was used for "Personnel-Human Resources Development" in 1984 and "Emergence of Vocational, Technical, and Occupational Education" in 1985. An analysis of Cycle 1 yielded a paper entitled "Preparing Agents of Change in Vocational, Technical, and Occupational Education" (ED 272 247). P-HRD was offered again in 1986 and E-VTO was offered again in 1987. An analysis of Cycle 2 yielded a paper entitled "Preparing Transformational Leaders in Vocational, Technical, and Occupational Education" (ED 290 860).

This paper is an analysis of Cycle 3 consisting of P-HRD in 1988 and E-VTO in 1989. The paper also includes conclusions drawn from the six year experience and offers comments about preparing leaders who can think strategically about (a) transforming contemporary traditional establishments and (b) creating entirely new caring and learning paradigms appropriate for an advanced technological era.

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VISION

> The very essence of leadership is you have to have a vision. It's got to be a vision you articulate clearly and forcefully on every occasion. You can't blow an uncertain trumpet.
>
> Father Theodore Hesburgh

* * * * * * * * * * *

Nova University's Non-Traditional Programs

A. Ultimate Goal of Graduate Education. The ultimate goal of graduate education is to design programs of preparation to promote improvement in the quality of education and training in order to develop in graduate students the competencies and skills necessary for people to carry out a role that society has deemed necessary for its well-being. In order to achieve that goal, professional educators with extensive background and experience engage in research about the preparation of professionals and the contexts in which they work. These professional educators then translate that research into graduate learning activities to assist students to attain a high level of proficiency in order to provide statesman-like leadership to institutions of society. Some universities also provide post-doctoral continuing education programs that assist persons to maintain and to improve essential leadership skills. Examples of such programs include the Harvard University "Institute for the Management of Lifelong Education" and the Carnegie Mellon University "College Management Program".

B. Emergence of Nontraditional Programs. When the Soutniks were launched in 1957, many sectors of the education and training industry began to examine their mission and programs. Several traditional institutions began to review program content formats, delivery system formats, and formats for evaluating student competencies and learning outcomes. The criticisms about education, particularly at the undergraduate and graduate levels, gave birth to a number of non-traditional programs. It was in this context that Nova University was founded in 1964.

Since its beginning, Nova University designed and implemented innovative approaches which provide nontraditional choices for a broad range of service providers. In January 1972, Nova University began to operate the first field-based delivery system of a doctoral program for practicing elementary- and secondary-level school administrators. This program provides three years of targeted study in which candidates must pass eight study areas, complete one performance-oriented practicum,

participate in two one week summer institutes, and complete a Major Applied Research Project (MARP). The program is being offered to approximately 500 candidates in cluster sites in 14 states.

That same year, the Ed.D. Program in in Early Childhood became operational. In January 1974, the program was expanded to include the study of middle childhood. The program provides three years of focused study in which candidates must pass five study areas, complete two practicums, and participate in two week long summer institutes. This program is currently being offered to approximately 300 candidates in 12 cluster sites. The Ed.D. Program in Early and Middle Childhood was used to develop the Ed.D. Program in Child and Youth Studies by strengthening the emphasis on proactive leadership and adding three areas of specialization: (a) School Management and Instructional Leadership for Excellence - SMILE, (b) Management, and (3) Special Services. This program was first offered in spring 1989.

C. Programs for Higher Education. The Ed.D. Programs for Higher Education were started in 1972 with a focus on preparing community college personnel. That single program evolved into three areas of specialization: (a) Higher Education; (b) Adult Education; and (c) Vocational, Technical, and Occupational Education. Each student must complete five core seminars, two specialization seminars, five practicums, two week long summer institutes, a comprehensive examination, and a Major Applied Research Project. The program is currently being offered to approximately 500 candidates at 13 cluster sites in 11 states.

Many students enrolled in these programs are employed in secondary adult and vocational education, higher education, business and industry, health and human service, and the military. Each student takes five core seminars: (1) Curriculum and Program Planning, (2) Governance and Management, (3) Applied Educational Research and Evaluation. (4) Learning Theory and Applications, and (5) Societal Factors Affecting Education. The specialization seminars are as follows:

Higher Education -
1. The Politics, Law, and Economics of Higher Education.
2. The Emergence of Higher Education in America.

Adult Education -
1. History, Philosophy, and Nature of Adult Education.
2. The Theory and Practice of Adult Education Methodology.

Vocational, Technical, and Occupational Education -
1. Personnel - Human Resources Development.
2. The Emergence of Vocational, Technical, and Occupational Education in America.

Practicums are applied research projects that are designed to promote the solution to current problems in the establishment in which the student works. Practicums are highly structured opportunities to put theory into practice and to apply newly acquired knowledge and skills to the reality of the workplace. Students must successfully complete five practicums, one of which must be in a specialization seminar. MARPs are much like practicums, only much more ambitious and rigorous. The MARP is the capstone to doctoral study.

The integrated program of study uses a field-based delivery format in combining instruction, independent study, and applied research. The program can be completed in three years. Normally, students attend one seminar per quarter. Three sessions are held for each seminar. Practicums are undertaken after the completion of the seminar. The comprehensive examination can be taken after the successful completion of six seminars and four practicums. The MARP is undertaken after the completion of seminars and practicums.

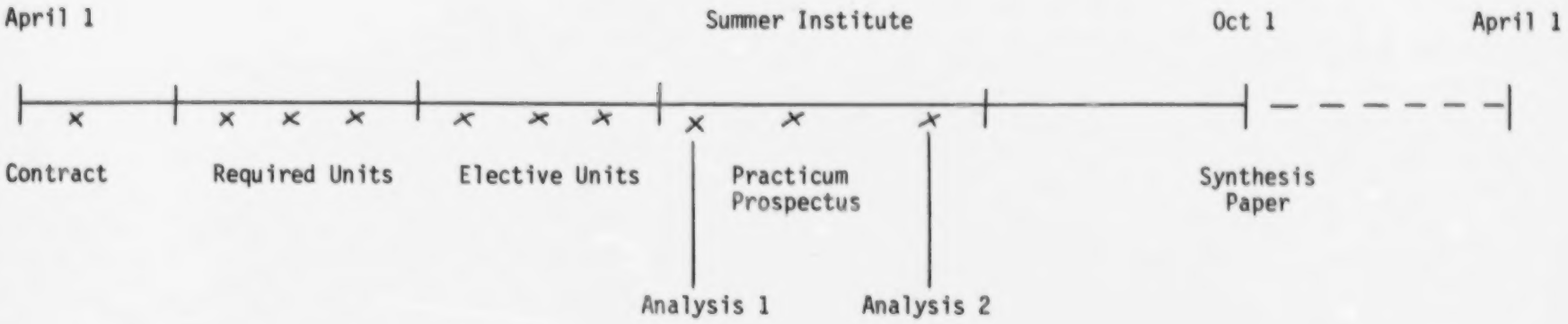
Students are organized into groups called clusters. Clusters provide the vehicle through which instruction and other services are provided to students. Cluster coordinators, professional educators who serve as local representatives of Nova University, manage all activities and services at the local level. During the first two nine-month academic years, formal instruction is offered by national lecturers during three three-month terms. National lecturers travel to the cluster sites for seminar meetings.

D. Delivery System for Specialization Seminars. Prior to 1984, specialization seminars were delivered in the same manner as core seminars were taught. Cost and the desire to link together seminars and the Summer Institute caused discussions about alternative ways to deliver the specialization seminars. During the summer of 1983, national lecturers were convened to (1) develop the conceptual framework for a new delivery system format, (2) identify the components that would be included in the new delivery system, (3) discuss alternative ways to design the various components, and (4) establish the time line for implementing the new delivery system.

These discussions included a review of research about adult learning and components that would be part of the new delivery system format. Ultimately the national lecturers decided the new system should include the following components: (a) a learning contract, (b) required units, (c) elective units, (d) participation in the Summer Institute, and (e) a synthesis paper. Materials would be sent to students in the winter so the term could begin April 1 and be completed by October 1. An incomplete could be extended for six months according to policy. See Fiugure 1.

Figure 1

THE SPECIALIZATION SEMINAR



II. The Vocational, Technical, and Occupational Program

A. Personnel - Human Resources Development (P-HRD). Because humans are the most important resource in an establishment, it was decided to modify P-HRD first to the new format. During the fall of 1983, national lecturers developed or made modifications to study guides and produced other materials to run the first series of specialization seminars in 1984 using the new format. The following materials were developed: (a) Overview and Contract Packet, (b) Study Guide, and (c) Synthesis Paper Guide. The Study Guide contained the following units:

1. Changing Nature of Society.
2. Stages of Human Development.
3. Linking HRD to Organizational Development.
4. HRD in the Technical Society Based on Information.
5. Use of Resources in the Personnel Function.
6. Organization and Administration of the HRD Function.
7. Legal Aspects of the HRD Function.
8. Student Personnel Function.
9. Leadership in Human Resources Development.

Units 1, 2, and 3 were required units.

These materials were distributed to students in March. Each student reviewed the materials, developed a learning contract by April 1, and wrote papers on three required and two elective topics. A student could receive academic credit for prior learning for one unit by requesting it in the learning contract and, if approved, submitting the appropriate materials. Each paper typically consists of two pages of a review of the literature and two pages of implications. A student could request to double up on one unit, either by doubling the size of one paper or by writing a second paper on another topic in the same unit.

Students attended the Summer Institute. During the week the students completed an analysis that pulled together the significant concepts and implications for each unit. Throughout the week individual counseling sessions were held between the national lecturer and students to discuss a broad range of program related ideas. Students also completed an analysis of significant ideas learned from attending sessions at the Summer Institute. Students submitted their synthesis paper by October 1.

B. The Emergence of Vocational Technical Education In America (E-VTO). During the fall of 1984, the national lecturers conducted a formative evaluation of the implementation of the first year of the new delivery system. National lectures developed or made modifications to study guides and produced other materials to run a second series of specialization seminars in 1985. Video tapes were produced that provided the national lecturer an opportunity to explain the new delivery system format for each

specialization seminar. In the case of E-VTO, the following materials were developed: (a) Overview and Contract Packet, (b) Study Guide, and (c) Synthesis Paper Guide. The Study Guide contained the following units:

1. Evolution of VTO in America.
2. Vocational Education In the Industrial Society.
3. Redesign of the Education System.
4. The Emergence of the Technical Society.
5. Economic Development and Revitalization.
6. Studies About Education.
7. Intellectual Capital Formation.

Units 3, 4, and 6 were required units. All other conditions remained the same, a deliberate decision to format the two specializations seminars identically so that each student could concentrate on content.

Students attended the Summer Institute with Analysis 1 completed. As a way of emphasizing diversity and individualization, students took the learning styles inventory by Kolb, Rubin, and McIntyre and a hemisphericity instrument by Torrance, Reynolds, Riegel, and Ball. Activity at the Summer Institute in 1985 was similar to that described for 1984.

An analysis of Cycle 1 yielded a paper entitled "Preparing Agents of Change in Vocational, Technical, and Occupational Education".(ED 272 247). The attached multi-year plan of action was developed during Cycle 1. P-HRD was offered again in 1986 and E-VTO was offered again in 1987. An analysis of Cycle 2 yielded a paper entitled "Preparing Transformational Leaders in Vocational, Technical, and Occupational Education".(ED 290 860).

C. Other Specialization Seminars. Specialization seminars offered in other higher education programs using the new format in 1984 and 1986 were as follows:

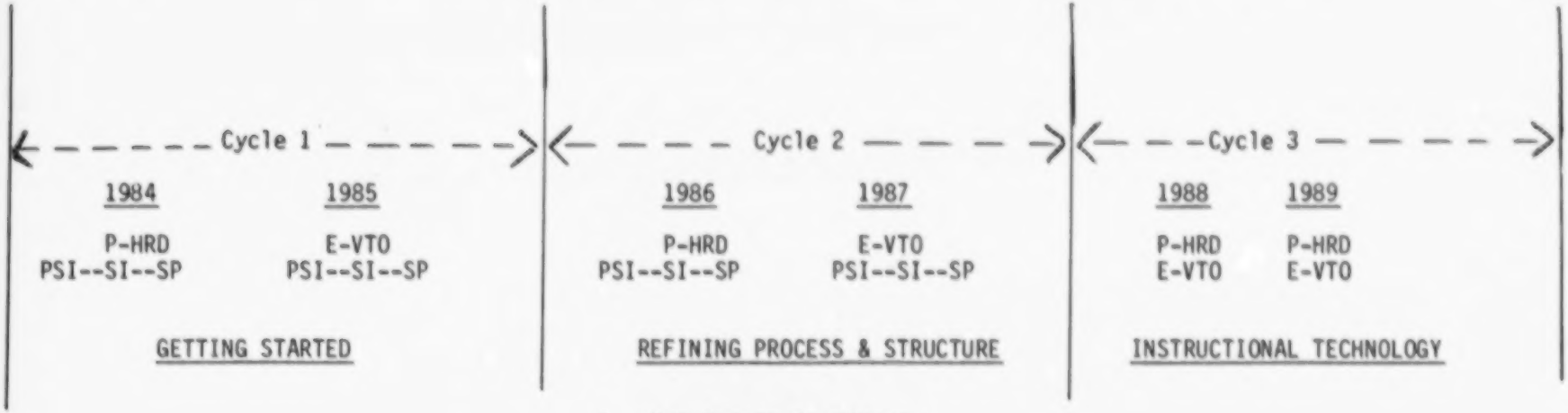
Higher Education -
1st The Emergence of Higher Education in America.
2nd The Politics, Law, and Economics of Higher Education.
Adult Education -
1st History, Philosophy, and Nature of Adult Education.
2nd Theory and Practice of Adult Education Methodology.

Specialization seminars offered through the new format in 1985 and 1987 were as follows:

Higher Education -
1st The Emergence of Higher Education in America.
2nd The Politics, Law, and Economics of Higher Education.
Adult Education -
1st History, Philosophy, and Nature of Adult Education.
2nd Theory and Practice of Adult Education Methodology.

Figure 2

MULTI-YEAR PLAN FOR VOCATIONAL, TECHNICAL, AND OCCUPATIONAL EDUCATION



1. Pre Summer Institute
   a. Tape
   b. Overview
   c. Study Guide
   d. Synthesis Paper Guide

2. Summer Institute
   a. First Day
   b. Group Sessions
   c. Individual Lessons
   d. Closing Session

3. Synthesis Experience
   a. Individual Growth
   b. Contextual Change

4. Follow-Up Activities
   a. Students
   b. Alumni
   c. Evaluation Report

III. Higher Education Director's Team

Dr. Ross E. Moreton announced at the 1987 Summer Institute his intention to form a Higher Education Director's Team (HEDT) to undertake a comprehensive evaluation of the Programs in Higher Education. He appointed 15 persons to the HEDT to represent cluster coordinators, core seminar lecturers, specialization seminar lecturers, research associates, practicum evaluators, MARP advisors, students, and central administration.

The HEDT held its first meeting on February 12-14, 1988, to discuss its purpose and identify problems and issues: practicums, curriculum, instruction, marketing, role clarification, and formative and summative evaluations. Concensus was reached on a working statement of expected competencies or outcomes. The Nova graduate should/would:

1. Be articulate and be able to communicate effectively (speaking, writing, listening);
2. Be informed in the field and about the higher education enterprise, in depth and breadth;
3. Be analytical and a problem-solver and change agent;
4. Possess a sophisticated outlook and behavior; and
5. Show progressively developed and demonstrated performance.

Several Task Groups were formed: Practicum Task Group, Curriculum Task Group, Instruction Task Group, Evaluation Task Group, Comprehensive Exam Task Group, Marketing Task Group, and Personnel/Role Clarification Task Group. Task Groups accomplish work and made recommendations at HEDT meetings at the Summer Institute in 1988, February 4-5, 1989, and the Summer Institute in 1989. A great deal of change has occurred. The Comprehensive Exam was administered for the first time in summer 1989.

While many activities will contribute to improved quality of the higher education programs, the HEDT commitment to examine all components in relationship to expected outcomes is singularly important. The HEDT has renewed energy to elevate the status of the higher education programs through a renewed emphasis on leadership. In addition, the HEDT decided to investigate the possibility of a major concentration within a specialized field of study. Choices for a major concentration could include general administration; academic administration; student services administration; research and planning; human resources administration; instruction, instructional technology, and instructional improvement; finance, budgeting, resource acquisition, and management; institutional and organizational development; public relations and governmental liaison; program evaluation and accreditation; and other categories of area and field.

IV. Personnel - Human Resources Development, 1988

A. Pre Summer Institute. During the winter term each student received (a) a cover memorandum, (b) Overview and Contract Packet, (c) Study Guide for P-HRD, and (d) Synthesis Paper Guide. In addition, each cluster was provided a video tape of the national lecturer explaining the program. Each student viewed the tape, negotiate a learning contract with the national lecturer for the three required and two elective units, and completed assignments.

B. Summer Institute. The specialization seminar met on Sunday afternoon. Following greetings and introductions, the national lecturer reviewed the Nova University philosophy, the VTO education specialization, and the P-HRD specialization seminar. Copies of each student's Analysis 1 were distributed to peers. Each student made a brief five minute presentation on Analysis 1.

To emphasize diversity and individualization, each student took the Kolb learning styles inventory, the Torrance hemisphericity test, and a modified Myers Briggs test. Students were divided into groups based on Myers Briggs scores and asked to discuss what society would be like in the 21st century and the implications for vocational, technical, and occupational education. Students met in small groups throughout the week to develop reports.

The theme of the Summer Institute was "Continuing The Commitment To Excellence: Enhancing Institutional Effectiveness". The keynote address entitled "Access, Articulation, and Assessment -- 3 A's for Research on Students" was delivered by Dorothy M. Knoell of the California Postsecondary Education Commission. Nationally renowned speakers made presentations throughout the week on various topics related to the theme. These speakers included Dr. Richard L. Fairley, Director of Higher Education Program Services of the U.S. Department of Education, and Dr. Rosemary F. Kolde, Assistant Superintendent of Great Oaks Joint Vocational School District in Cincinnati and a Past President of the American Vocational Association. Dr. Nancy F. Gadbow conducted a workshop on principles of adult learning.

The specialization seminar met on Saturday morning and heard presentations from the four groups: strategic humanists, strategic managers, pragmatic humanists, and pragmatic managers.

C. Synthesizing Experience. Each student integrated Analysis 1, significant concepts and implications from the papers, with Analysis 2, ideas obtained at the Summer Institute. The synthesis papers were of high quality.

V. Emergence - VTO Education, 1989

A. Pre Summer Institute. During the winter term each student received (a) a cover memorandum, (b) Overview and Contract Packet, (c) Study Guide for E-VTO, (d) Synthesis Paper Guide, (e) an example of a synthesis paper written by a student in 1989 who completed the program, and (f) "Critical Mass" article. In addition, each cluster was provided a video tape of the national lecturer explaining the program. Each student was asked to view the tape, review the materials, and negotiate a learning contract with the national lecturer for the three required and two elective units.

During May each student received a second memorandum which (a) listed materials that should have been received, (b) provided a list of students in E-VTO, (c) introduced Dr. Richard L. Fairley, (d) discussed the futuristic nature of E-VTO, and (e) asked each student to complete a modified Myers Briggs test. One of the biggest challenges facing VTO is predicting, with some degree of accuracy, the demographic, social, economic, political, technological, and value changes that will occur in the future and interpreting the impact on programs. A chart entitled "The Decade of Rapid Technological Change" was distributed with the memorandum. Each student was told to begin to collect and analyze trend information, particularly changes in the workplace. It was recommended that each student read Perspectives on the Education and Training System of the Future (ED 272 774) and "The Learning Community of the Future: Education and Training in the 21st Century" (ED 280 538).

During June each student received a third memorandum which (a) discussed Analysis 1 of the required and elective units; (b) provided a display of major changes in the 1990s as perceived by the national lecturer and asked each student to specify technological advances for their area of specialization; (c) provided a personal data sheet and a copy of the Kolb learning styles inventory, the Torrance hemisphericity test, and the Hersey and Blanchard "Leader Effectiveness and Adaptability Description" test; and (d) suggested additional readings. (Appendix A is a copy of "The 1990s: Transition to the 21st Century"). It was recommended that each student read "Preparing Transformational Leaders in Vocational, Technical, and Occupational Education (ED 290 860) and "Achieving Excellence Through Strategic Planning" (ED 298 977).

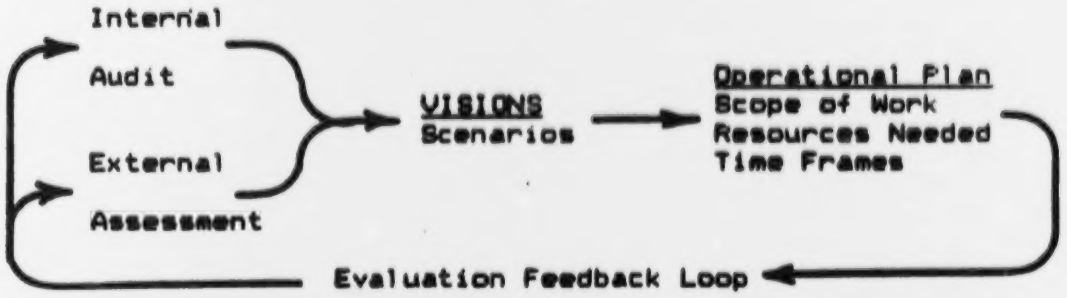
Each student fulfilled the learning contract. Then, each student completed Analysis 1 of significant concepts and their implications for each unit in the learning contract. Each student duplicated Analysis 1 for distribution to other students at the Summer Institute.

B. Summer Institute. The specialization seminar met on Sunday afternoon. Following greetings and introductions, the national lecturer reviewed the Nova University philosophy, the VTO education specialization, and the E-VTO specialization seminar. Each student distributed a copy of Analysis 1 to peers.

The national lecturer explained how to do Analysis 2. It was recommended that each student should list significant concepts and their implications immediately after attending each session. If this was not possible, that task should be completed at the end of each day. By Saturday, Analysis 2 would be completed and each student would be able to identify common themes from Analysis 1 and Analysis 2.

The national lecturer then distributed materials that described strategic planning. Strategic planning is based on (1) a comprehensive audit of an establishment's internal environment, (2) an assessment of an establishment's external environment, (3) development of visions of the future -- alternative scenarios from which an establishment selects a preferred scenario, (4) specification of strategic options based on "windows of opportunity", (5) refinement of strategic options into tactical alternatives and (6) specification of an operational plan of resource requirements (human, space, technology, financial) and management strategy to assist the establishment in advancing toward the preferred scenario. Establishments must also develop a formative and summative evaluation component as a means of closing the loop for institutional renewal. The basic model for strategic planning is displayed in Figure 3.

FIGURE 3
Basic Model for Strategic Planning



The internal audit focuses on such factors as mission, policy, planning and evaluation, goals and objectives, governance structure, primary programs, support programs, students or clients, learning and learning resources, faculty and staff, equipment, facilities, finances, organization and administration, and outcomes -- output and impact. The purpose of the internal audit is to identify

strengths and weaknesses in institutiuonal culture, efficiency, effectiveness, functioning, and strategy.

The external environment includes demographic trends, social expectations and trends, economic indicators and trends, political change, scientific and technological advances, advances in communication and information technologies, values shifts, changes in the workplace, changes in quality of life, and numerous other variables. The purpose of assessing the external environment is to identify opportunities and threats.

The national lecturer indicated that a few institutions are doing a better job with the internal audit, and a few institutions are doing a better job with the assessment of the external environment. However, it is difficult to find good examples of visions of the future.

The national lecturer then discussed the chart that displayed changes in the 1980s and the chart predicting changes for the 1990s. The national lecturer also discussed "windows of opportunity" from an assessment of the external environment and strengths and weaknesses of the contemporary traditional education model using categories of (a) advocacy and governance; (b) functional analysis; (c) enrollment management; (d) climate, culture, and tapestry; (e) economics: revenue and cost; and (f) outcomes: output and impact. He then discussed a list of 25 mega problems identified in the 1987 national elections and program titles in the Elementary and Secondary Education Act and the Higher Education Act. He then distributed a packet of information on technological advances and students distributed their materials on technological advances. The national lecturer then discussed the governance structure of vocational and technical education. (See Appendix B).

The national lecturer discussed the task of predicting change in the 1990s. Students were placed in teams based on planning preferences as indicated on the modified Myers Briggs test. Throughout the week, teams met and discussed (a) major assumptions about the future; (b) major assumptions about vocational, technical, and occupational education; and (c) projections for the 1990s. The group also heard presentations from Dr. Richard L. Fairley. Meetings were held from 11:00 to 12:00 on Monday, Tuesday, Thursday, and Friday and from 8:30 to 12:00 on Wednesday.

The theme for the Summer Institute was "Preparing the Workforce for 2001: Educating the At-Risk Student". The keynote address entitled "Minorities in Higher Education: Confronting a Time Bomb" was delivered by Manuel J. Justiz, Chaired Professor of Higher Education, University of South Carolina. Mr. Justiz was former Director, National Institute of Education. Nationally renowned speakers made

presentations throughout the week on various topics related to the theme. In addition, sessions are held to help students access information and assist with practicums and MARPs.

The specialization seminar met on Saturday morning and heard group reports. Then the national lecturer made a presentation on changing conditions and outlined a comprehensive multiyear plan of action on "Developing Information Age Learning Paradigms"(DIALP). Research indicates weaknesses of contemporary traditional education. DIALP is a proactive approach to developing alternatives to contemporary traditional education. DIALP would build on the 35 references to education in the Republican platform in the 1987 elections and recent events. DIALP calls for concentrated brainstorming on the use of technology to enhance learning. The program would establish six Research and Development Centers and 24 Demonstration Projects to develop Partial Technological Deschooling Models and then Learning Communities of the Future. (Appendix C contains the plan).

Dr. Abraham S. Fischler, President of Nova University, played the role of U.S. President George B. Bush and responded to the reports by indicating that he wanted to be known as the "Education President" and outlined several steps in a program, the cornerstone of which is The Education Utility. "The Education Utility is an electronic delivery and management system that will provide instantly, to the desks of educators and students located anywhere in the world, massive quantities of continually updated instructionally interactive information (software programs, databases, sophisticated graphics capabilities, news services, electronic journals, electronic mail, and other instructional and administrative materials).(Booler, p. 11). Dr. Richard M. Goldman, Dean of the Center for the Advancement of Education, played the role of Secretary of the U.S. Department of Education Louis Cavazos; he indicated his support for such initiatives as the "information stamp", programs to impact on at-risk children, "choice" programs, and ideas contained in the 107 bills in Congress that relate to children.

The national lecturer concluded the Saturday session by reviewing the requirements for the synthesis paper.

C. Synthesizing Experience. Each student reviewed her/his learning contract and Analysis 1, significant concepts and their implications from the required and elective units. Each student then synthesized Analysis 1 with Analysis 2, significant concepts and their implications from the Summer Institute and the E-VTO seminar sessions. The synthesis papers were of high quality. Several students were encouraged to publish their synthesis papers.

VI. Analysis of Outcomes: Output and Impact

The National Center for Higher Educatin Management Systems divides outcomes into output of the establishment and impact on society. A great deal of this discussion will focus on process leading to output of P-HRD and E-VTO. Topics discussed are (a) specialization seminar format, (b) integration with the world of work, (c) program synchronization, (d) student output by cycle, and (e) seminar and program research. Comment will also be made about impact.

A. Specialization Seminar Format. The macro design of the new delivery system for specialization seminars was a decision made by national lecturers and central administration after a review of research about adult learners. All specialization seminars have a common format: (a) learning contract, (b) required units, (c) elective units, (d) participation in the Summer Institute, and (e) a synthesis paper. Within that framework, variations are encouraged based on clientele and competencies to be acquired. A deliberate decision was made to format P-HRD and E-VTO identically so that second year students would be familiar with process and could focus exclusively on content. Beginning in 1990, the term will begin on June 1.

The first part of the seminar emphasizes self-direction in learning. The Summer Institute blends independent study with large and small group learning activities among students from clusters throughout the nation and, in fact, the world. Analysis 1 and Analysis 2 contribute greatly to the quality of the synthesis paper. The sharing of Analysis 1 among the students contributes to the learning process. The synthesizing experience presses a student toward higher order cognitive performance.

Although academic credit for prior learning has been a part of the VTO specialization since the implementation of the new delivery format in 1984, only a few students have requested that option. Only two of sixteen students requested academic credit for one unit in P-HRD in 1988. Only three of twenty eight students requested it for E-VTO in 1989. It is unclear why more students do not pursue this option. The practice is fairly common elsewhere. Graduates of a VTO graduate program should at least be aware of the concept and the practice of recognizing "other sponsored" training for their own students.

Beginning in 1990, academic credit for one unit can also be requested for participation in an activity related to professional development such as participation in a conference sponsored by the American Vocational Association, American Technical Education Association, American Association of Community and Junior Colleges, and other

organizations. Credit can be given for participation in workshops sponsored by Nova University.

B. Integration With the World of Work. P-HRD and E-VTO have nine and seven units respectively. Each student identifies topics within required and elective units that presumably are important in her/his work setting. While seminar evaluations encourage each student to indicate topics and activities of greatest value, there is no follow-up evaluation to determine how the ideas are applied to real world problems.

Beyond this type of relationship, there are other aspects that are a part of the concept of coupling the VTO specialization to the world of work. P-HRD's three required units are (1) "Changing Nature of Society", (2) "Stages of Human Development", and (3) "Linking HRD to Organizational Development". E-VTO's three required units are (1) "Redesign of the Educational System", (2) "The Emergence of The Technical Society", and (3) "Studies About Education". These six units provide a <u>basic</u> understanding of a few essential concepts, past and present. During the first four years of the new format, a great deal of energy was dedicated to a strategy for increasing integration and systhesis. During the last two years, more energy was dedicated to anticipating the future. If the VTO specialization is to produce proactive leaders, instructional strategy and technology must go beyond helping students to anticipate the future and the program implications to focus on specifying alternative scenarios and on shaping preferred scenarios.

C. Program Synchronization. The work of the HEDT is contributing greatly to internal program synchronization. The expected competencies and student learning outcomes are being used to upgrade each component of the program. This analysis will provide the opportunity to examine the relationship between core seminars and specialization seminars. For example, the core seminars "Governance and Management", "Curriculum", and "Societal Factors" contribute a great deal to a student's understanding of context, culture, and climate. The author of this paper is fortunate in that he teaches both specialization seminars and the core seminar "Governance and Management". In fall 1989 he will also serve as a practicum reader for VTO.

Program synchronization goes beyond the relationship among the pieces such as core and specialization seminars and between VTO and the world of work. Program synchronization must also consider the way students are processed. The didactic and applications parts of the higher education programs include five core seminars (C-), two specialization seminars (S-), five practicums (P), two

Summer Institutes (SI), and a MARP. The format is as follows:

Fall Term	Winter Term	Spring Term	Summer Term
Core 1	Core 2	Core 3	S-1 SI
	P 1	P 2	P 3
Core 4	Core 5		S-2 SI
P 4	P 5		

A second year student could have completed five core seminars, the first of two specialization seminars in any order, five practicums, one Summer Institute, the comprehensives, and working on a MARP. On the other hand, a first year student may have been admitted to a cluster in a spring term during which time only practicum services are being offered or been admitted to a regional cluster in a spring term and attend the Summer Institute immediately after two weeks of compressed intensive study of two core seminars. Creative strategy must be developed to accommodate students with diverse patterns of progression through the programs.

D. Student Output By Cycle. The higher education program specialization in vocational, technical, and occupational education has had three P-HRD and E-VTO cycles with the new format.

Cycle 1. Eight (8) students successfully completed P-HRD in 1984. Fifteen (15) students successfully completed E-VTO in 1985. This second group included most of the students from P-HRD in 1984.

Cycle 2. Twenty five (25) of twenty eight 28 students successfully completed P-HRD in 1986. This group included many of the students from E-VTO in 1985. Twenty three (23) of twenty four (24) students successfully completed the requirements in 1987. This group included many students from P-HRD in 1986 and one student who had "stopped out" of the sequence.

Cycle 3. Sixteen (16) students successfully completed P-HRD in 1988. This included one student who had already completed a specialization in higher education and wanted a specialization in VTO. Twenty three (23) of twenty eight (28) students successfully completed E-VTO in 1989.

Nineteen students in 1989 are in their first year.

E. Seminar and Program Research. Cycle 1 had a focus on getting started -- determining what content was absolutely essential and experimenting with process and strategy. As previously indicated, a great deal of energy was dedicated to integration and synthesis of significant concepts and their implications. Energy was also dedicated to one on one advising and counseling sessions to individualize the program. First year students were given "survival" skill training as well as content and process suggestions. Second year students obtained assistance with ideas for practicums and MARPs. The formative evaluations indicated that the six required content units were, in fact, essential topics and the other ten elective topics provided relevant diversity for the range of student needs.

Cycle 2 had a focus on refining process and structure. The focus on integration and synthesis was continued through group and individual sessions. A great deal of energy was dedicated to assessing individual differences -- learning styles, hemisphericity scores, and planning preferences. Assessment and recognition of individual differences is integral to the concept of treating "the student as the class" and an important concept that Nova students and graduates should use in their own work.

Cycle 3 had a focus on instructional technology. Information about individual differences was used to customize instructional materials and strategy to enhance learning. For example, small groups were formed based on planning style (pragmatic humanists, pragmatic managers, strategic humanists, strategic managers) for scenario development. In 1989, personal data variables were collected and compared with scores from the above-names tests. This commitment to assessment and the use of information to enhance learning will continue.

Should enrollment increase so that both P-HRD and E-VTD would be offered each summer, first year students would take E-VTD and second year students would take P-HRD. The logic of this sequence is based on the need to predict what society and workplace will be like in the future and then look at workforce staffing.

F. Impact. Although <u>Outstanding Educational Improvement Projects</u> are reported periodically, no formal means for determining impact has been established. Two activities worth pursuing on this topic are the workshops which are an extension of the Summer Institute and assessing the "value added" to an institution by practicums and MARPs.

Dr. Diane Paul is a graduate of the VTD specialization with background in working with at-risk students, the theme of the 1989 Summer Institute. The seven workshops on the topic "Preparing the Workforce for 2001: Alternatives for

At-Risk Students" holds great potential for demonstrating impact as well as for marketing the programs.

The Nova programs are intended to produce leaders who can change programs and institutions through practicums and MARPs. During Cycle 2, four individuals from Heart of Gerogia Technical Institute enrolled in VTO. The programs require that each student complete five practicums and a MARP. One individual has graduated and two more are nearing completion of the MARP. These four persons identified problems that were a high priority for Heart of Gerogia. They have agreed to participate in a study to determine the "value added" to Heart of Gerogia as a result of the Nova experience.

VII. Conclusions

Concluding remarks will focus on professional graduate education, leadership, VTD, and a postgraduate program.

A. Professional Graduate Education. Professional graduate education is in an early stage of becoming a genuine science. It depends on and borrows heavily from other fields such as psychology, sociology, management science, law, and broad range of disciplines. Futhermore, professional graduate education occurs as a result of a philosophy and conceptual framework which are an elongated shadow of the values of a group of full-time and part-time expeirenced educators. They develop a common philosophy and conceptual framework and then assemble the curriculum -- a mosaic of content, methods for delivering that body of knowledge, and techniques for assessing the acquisition of competencies and skills by students. Periodically they assess what has occurred over the years and chart a course of action for the next several years. This report attempts to do that. The assessment and the report is far from a genuine science. The process does, however, represent serious reflection and thought to chart direction.

B. Leadership. Numerous issues will be important in the decade ahead. No issue, however, will be more important in the U.S. than leadership. Will professional graduate education produce the critical mass, quality and quantity, of intellectual capital to (a) transform contemporary traditional establishments and (b) create entirely new caring and learning paradigms for an advanced technical era? The tool for doing job is strategic planning if the technology can be elevated beyond a mere modification of an MBO process to a mature stage of strategic thinking. It will be essential to prepare the critical mass of leaders in higher education, adult leadership, and VTD who can **VISUALIZE** and **ENERGIZE** for **EXCELLENCE.**

Currently the HEDT is improving the quality of existing components, primarily through review of each component and assessing the interconnectedness among them. The HEDT is also beginning to consider units within components such as the core seminars. A seminar on "leadership" has been proposed. Several options are being considered: (a) a sixth core seminar, (b) combine two existing core seminars and include a a new seminar as the fifth core seminar, and (3) consider the proposal as a specialization seminar. The Ed.D. Program in Child and Youth Studies has "Leadership I" at the start of the program and "Leadership II" at the end of the program. "Leadership I" has a focus on (a) reviewing macro societal problems, (b) developing an individual educational plan and organizational development plan, and (c) defining problems and issues. "Leadership II" has a focus on (a) synthesizing significant concepts learned in

the past three years, (b) developing visions of the future and a preferred scenario, and (c) specifying public policy for the preferred scenario.

C. VTO. During Cycle 1, a multi-year plan was developed to help guide the development of the VTO specialization. This analysis described the progress made during the past six years and indicated some of the ideas that have been tried and those that will be continued. First, a more comprehensive assessment will be made of student's personal data variables. The concept is important for Nova students to learn and use in their work environment. The process provides data that are important in developing strategies for learning activities and customizing the program. Second, VTO will continue to review the past and present, but will focus on the future -- changes in society, changes in the workplace and workforce, and implications for vocational, technical, and occupational programs in business, engineering, health, public service, etc. The traditional academic approach to education reform is insufficient. Vocational, technical, and occupational education of high quality ought to be the program of choice to help raise the quality of society and eduction and training service providers -- schools, colleges, business, hospitals, military, etc.

The multi-year plan for VTO for the next three cycles is as follows:

MULTI-YEAR PLAN FOR VTO

Cycle 4		Cycle 5		Cycle 6	
1990	1991	1992	1993	1994	1995
P-HRD	E-VTO	P-HRD	E-VTO	P-HRD	E-VTO
<u>INTEGRATION</u>		<u>PARTIAL ON LINE</u>		<u>ON LINE</u>	

Cycle 4 will improve each seminar and also integrate each seminar more fully with other program components consistent with the work of the HEDT. Cycle 5 will focus on putting some of the pre- and post-Summer Institute learning activities on line as an option for a student who can use the electronic highways and contemporary communications technology that are already being used for a variety of purposes. Cycle 6 will consist of two strategies for the delivery of VTO: (a) the current delivery format and (b) the on line strategy for pre- and post-SI learning activities. The electronic highways could be used for a variety of networking activities related to professional responsibilities and activities to shape public policy.

The Education Utility concept holds great potential for providing greater access to quality and equality of educational oportunity, be the concept developed by the private sector such as AT&T and the National Information Utilities Corporation or a public policy on Developing Information Age Learning Paradigms in two phases: (a) "Partial Technological Deschooling Models" followed by (b) "Learning Communities of the Future." The concept of the EU will become a reality for the affluent. The Federal Government, if committed to equality of opportunity, will have to implement public policy to make the concept, in whatever technological form, available to mass public education. By the mid 1990s the conceptual framework will have been refined and many of the technological issues will have been identified and research targeted for their resolution. There will always be a series of access, economic, legal, privacy, and othe issues that will warrant attention.

A student enrolled in a credible graduate professional program should be able to use contemporary technology, delivery format and hardware, to satisfy selected degree requirements, possibly the entire degree.

D. Interdisciplinary Postgraduate Diplomate (IPD) Program. Graduate programs help a student to attain a BASIC level of competence as a service provider as an individual practitioner and as a unit leader in some context with defined paramaters. The literature is replete with references about the need for lifelong learning. The lifelong learner who wants to maintain or improve that basic level of competence at the individual or unit levels is constantly engaged in self-directed and group learning activities which are goal oriented and structured. Futhermore, if a person aspires to a third level of societal leadership, the problems to be solved span several disciplines that require a generalist's perspective beyond the narrow specialist perspective that is the goal of contemporary traditional professional graduate programs. The person at this third level of leadership seeks numerous intense, structured programs such as those listed earlier in this document or a program such as the Snowmass Institutes on Strategic Planning. The desire for such experiences is evident in the number of Nova students and graduates who continue to attend the Summer Institutes.

The need for such a structured program is especially acute in academic affairs administration at secondary and postsecondary levels and in hospital contexts. It is difficult enough to stay current in a single technical field within an area such as drafting, electronic engineering, mechanical engineering, etc. The department chairperson or deanship for the above-named areas, or similar units, is extremely complex in that the individual must go beyond

technology in a single field to technologies in many fields and, at the same time, provide leadership for all phases of management -- curriculum, human -- student and faculty, fiscal, etc. Furthermore, at this level the individual must interface a closer relationship between the world of education and the world of work, possibly because of state mandate relating to economic competitiveness. Reasonable success for any length of time at that level results in promotion to the next level and leadership for the full array of occupational programs -- business, engineering, health and human services, public services, etc.

No system is undergoing more fundamental change than the health and human services system. Most health care professionals are trained in narrow areas of specialization as a service provider. After a limited period of employmewnt, a competent individual will be asked to assume greater responsibility. A nurse specialist, for example, may be asked to assume respinsibility for a ward, floor, wing, and then an entire department. After some successful experiences, a few persons will be promoted to higher positions of responsibility for patient care, nursing service, nursing education, and basic research. Nursing education could include a free standing school of nursing, clinical affiliations with colleges and universities, and continuing education. Nursing service must change as patient needs change and the structure of health and human services change from the acute care hospital setting to out patient services and community based settings.

The VTO program already provides an opportunity for basic dialogue on such issues. But, the primary goal of students must be on degree completion. Futhermore, that opportunity is but an a basic discussion and insufficent. Such discussions will continue and could benefit from a structured format designed by competent professionals.

A formal proposal that discussed the need for a structured postgraduate learning experience was developed in March 1986. That proposal has been modified several times. The current proposal consists of a one year IPD: (a) a one week Diplomate Institute I in Washington in early summer, (b) networking and two enrichment workshops during the year, (c) a second one week Diplomate Institute II late summer of the following year, and (d) some follow-through networking activity on critical problems and issues. Research clearly indicates that contemporary traditional establishments are not responsive to the cultural diversity of the various groups of people in this "nation of nations." IPD could set a goal and chart a course of action to help develop policy and programs to assist contemporary traditional establishments become more competent, proficient, and responsive to a society that will become even more culturally diverse in the 1990s and the 21st century.

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1990s: Transition To An Advanced Technical Era

1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000

Demographic

graying of America

graying of America

graying of America

cultural diversity

cultural diversity

cultural diversity

Social

Decade for Children and Youth

Special groups -
- elderly
- Native Americans
- Afro-Americans
- Hispanics
- Asians

Economic

Europe 1992
Canada-US-Mexico
Limited South American Common Market
Pacific Rim Common Market
Limited USSR & China CM
Central America CM
North & South America CM
Western Asia CM
Emergence of Global Integrated Economy

Increase in number of multinational corporations

LBOs of MNCc

MNCs vs Nations

Technological Miniaturization of Electronics
Superconductors & Advanced semiconductors
Communication & Information Technologies, Fax, Computers
Fiber Optics, Optics & High-definition TV
Biotechnology, Chromosome Mapping, & Pharmaceuticals
Body parts - mechanical & animal
Aeronautics
Energy - Solar, Wind, Ocean/Sea

Governmental Planning/Political

Critical Points of Intervention

1	2	3	4	5	6
1990-1991	1992-1993-1994-1995		1996-1997-1998-1999		2000
(1, 3, and 5 = Platform)			(2, 4, and 6 = First 100 Days)		

Use of electronic highways for proactive advocacy
Goal setting and leadership development projects

Values

Traditional

New Values

New Values

STRATEGIC THINKING

INTERNAL

AUDIT

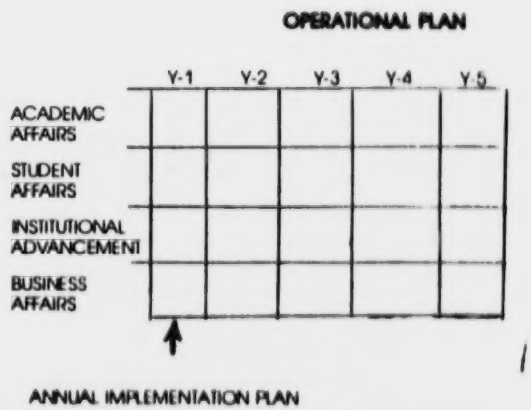
VISIONS:
ALTERNATIVE
SCENARIOS

1. 21st CENTURY
2. 1990s - 2nd HALF

PREFERRED
SCENARIO

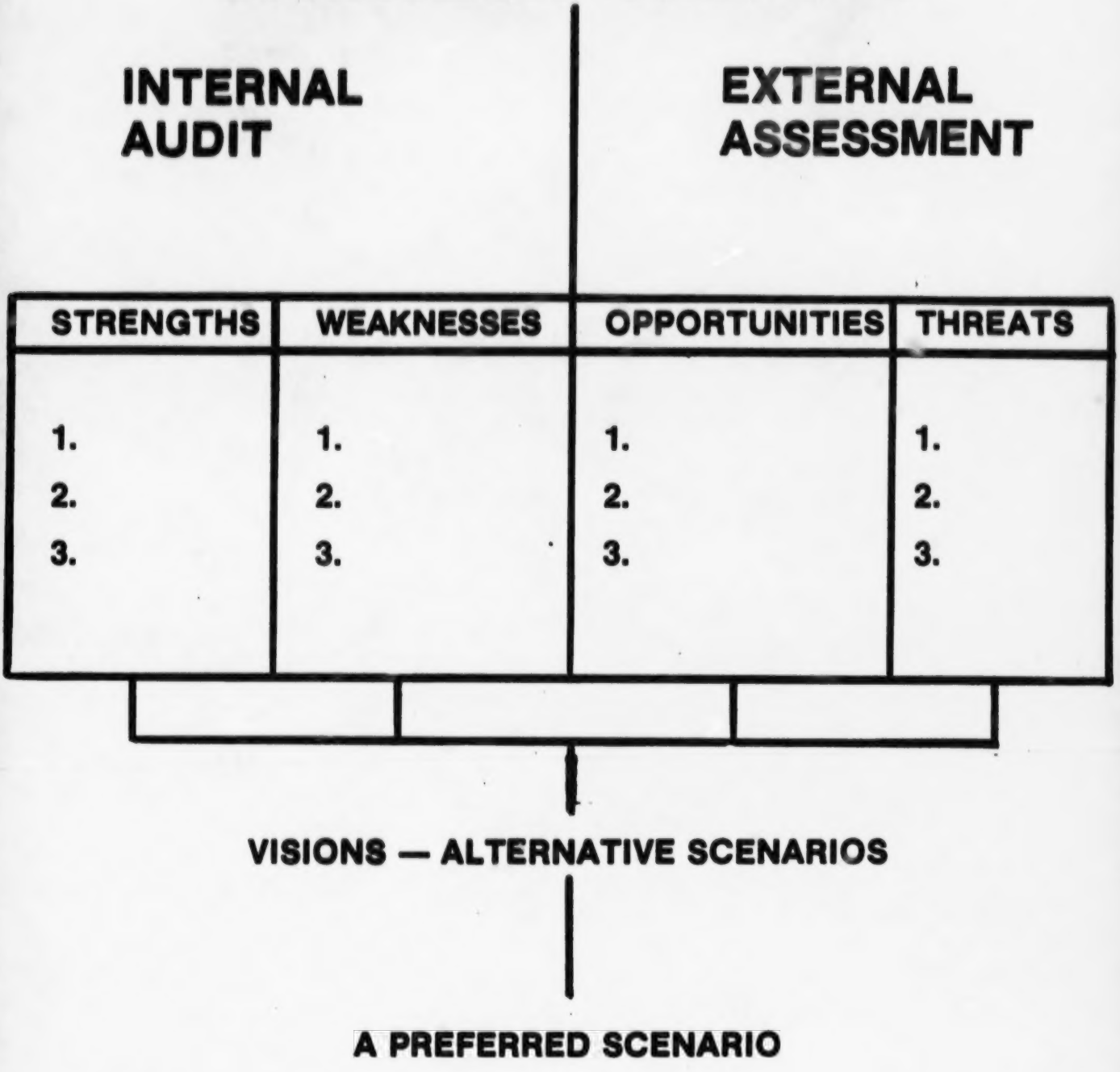
EXTERNAL

ASSESSMENT



OPERATIONAL PLANNING

STRATEGIC THINKING



A Framework For Specifying Opportunities And Threats

VARIABLES	Opportunities	Threats
Demographic		
Social		
Economic		
Political		
Technological		
Information		
Values		

VISIONS OF THE FUTURE

	1955	1985	2000	2020
	Postindustrial Society	Early Technical Society	Advanced Technical Society	
HEALTH AND HUMAN SERVICES				
BUSINESS AND INDUSTRY				
GOVERNMENT AND MILITARY				
EDUCATION AND TRAINING				

Windows of Opportunity

Major demographic, social economic, technological, governmental planning/political, and value changes are occurring throughout the world and will continue to occur in the decades ahead. Windows of opportunity include:

1. the graying of America,
2. cultural diversity,
3. education and training,
4. economic status,
5. "The Decade of Children and Youth",
6. special groups -- the elderly, Native Americans, Afro-Americans, Hispanics, etc,
7. establishment assistance,
8. occupational forecasting,
9. customized education and training,
10. cultural understanding to promote international trade,
11. helping establishments and individuals understand change and infrastructure,
12. assisting in the development of hard and soft technology,
13. participating in research and development,
14. stimulating the rate of technology transfer,
15. helping people acquire competencies in communications and information technologies,
16. critical points of intervention in governmental planning,
17. use of electronic highways for proactive advocacy,
18. community goal setting and leadership development,
19. analysis of changing values.

Strengths and Weaknesses

Topic	Strengths	Weakenesses
Advocacy & Governance	One-Fourth of the People	Many Points of View
	Pluralistic Advocacy	No Real Consensus
	Statewide Coordination	Much Centralization
	Voluntary Consortia	Few Genuine Partnerships
	Limited Cooperation Among Establishments	Little Interestablishment Strategic Thinking
Functional Analysis	"Ends" - Worker, Citizen, and Individual	"Means" - Confusion, Range In Quality
	Contemporary Traditional Model	"Choice" Only For The Rich
	Mandated Desegregation	Destroyed Neighborhood Sch.
	Voc. Ed. + Adult Ed.	Confusion Over Turf
	Higher Education Pluralism	Confusion Over Mission
	Instruction, Res., & Service	Confusion Over Priorities
	Non Traditional Experiments	Diploma Mill Rip Offs
	Community & Economic Dev.	Courtships & Divorces
Enrollment Management	Renewed Interest In Youth	No Serious Restructuring
	Some Limited Experiments in Middle Schools	Physical Infrastructure Too Often Dictates Groupings
	Vocational, General & Academic	Variability Among Tracks
	Participation in Postsec. Ed.	Part. Rates By Gender/Race
	Broad Program Infrastructure	Math, Sci, Engin, Tch Ed
	Non Traditional Market Niche	Driven By Fed Stud Fin Aid
	Community & Economic Dev.	Only Meeting a Small Need
Climate, Culture & Tapestry	Greater Awareness of Contexts	Focus Primarily on Internal
	Recognition of Human Dimension	Inadequate Human Resources
	Renewed Interest in School Based Management	Already Turned Off Many Creative Personnel
	Learning Communities In College	Too Few Experiments
	Experiments With Technology	Fragmented & Disconnected
	Awareness of Strategic Planning	Need For Strategic Thinking
	A Few Good Models	Unilateral+Collaborative
Economics: Revenue & Cost	State & Local Funding Options	Inequitable Dist. of Wealth
	Great Investment in Physical Infrastructure	One In Four School Plants Is Inadequate
	Local Area Networks	Need Electronic Highways
	Affluent Schools & Colleges	Inequality of Opportunity
Outcomes: Output & Impact	Growing Awareness of Outcomes: Outputs and Impacts	Variable Treatment of Ethnic-Racial Diversity
	Thinking About Restructuring Elementary School - NASBE	Clinging To Contermporary Traditional Sch. Model
	Need for "Learning Communities"	No Coherent Plan of Action

Mega Problems for the Next Several Administrations

Mega Problems	-----91	1992------1995	1996------1999
Overhaul of Medicare			
Commuter Gridlock			
Overdeveloped Suburbs			
Gap Between Rich and Poor			
White Collar Crime			
Feminization of Poverty			
Defense Burden of Allies			
Ethics in Government			
Environmental Pollution			
Business Tax Incentive			
Toxic Waste Disposal			
Workplace Safety			
Housing for Homeless			
Waste in Govt. Spending			
AIDS Epidemic			
Quality of Education			
Child Day Care			
Privacy of Information			
Foreign Arms Deals			
War on Drugs			
International Terrorism			
Foreign Ownership of US			
Services to the Elderly			
Teenage Pregnancy			
Children in Crisis			

Augustus F. Hawkins - Robert T. Stafford
Elementary and Secondary Education Act. P.L. 100-297

------91 1992------1995 1996------1999

Basic Programs
- Special Needs (Chapter I)

Critical Skills Improvement
- Math and Science
- Foreign Language
- Teaching Excellence

Magnet Schools

Special Programs
- Women's Equity
- Gifted and Talented
- Older Americans
- Immigrant Education
- Territorial Assistance
- Innovations in Education

Drug Education
- Drug Abuse and Prevention

Dropout & Basic Skills
- School Dropout
- Basic Skills

Bilingual Education
- Bilingual Education
- Evaluation & Research
- Training

Impact Aid Program

Adult Education
- Workplace Literacy
- National Programs
- Ed for Economic Security

Star Schools Program
- Vocational Education
- Child Development

Educational Assessment
- Improvement & Reform
- National Assessment

Ed for Native Hawaiians

Indian Education

General Provisions
- Ed for Homeless
- Prohibition of Dial-A-Porn

Higher Education Act

------91 1992--------1993 1996--------1999

Nontraditional Students

Libraries

Institutional Aid
- Strengthening
- Historically Black
- Challenge

Student Assistance
- Grants
- Loans
- Work Study
- Income Cont Loans
- Direct Loans

Teacher Tr & Dev
- Sch Col Partnerships
- Pro Dev & Leadership
- Teacher Scholarships

International Educ

Construction & Ren

Cooperative Educ

Graduate Educ

Postsecondary Educ
- Minority Sci Improvement
- Science and Engineering

Partnerships - Ec Dev
- Urban Community Service

Gen - Terrorities

Educ Admin

Educ Res & Stat

Native Americans

US Inst for Peace

Developing Consensus and Focus For The National Iniative
Developing Information Age Learning Paradigms (DISFP)

1988 Political Platforms - add specificity

1989 First 100 Days - $441 Million

5-23 Education President Bush meets with Congressional Black Caucus

Developing Consensus and Focus

1990 White House Conferences

February - Children and Youth

May - Elderly

September - Baby Boomers

November - Minorities

1991 Conferences on Special Groups

January - Native Americans

February - Afro-Americans

March - Hispanics-Latinos

April - Asian-Pacific Islanders

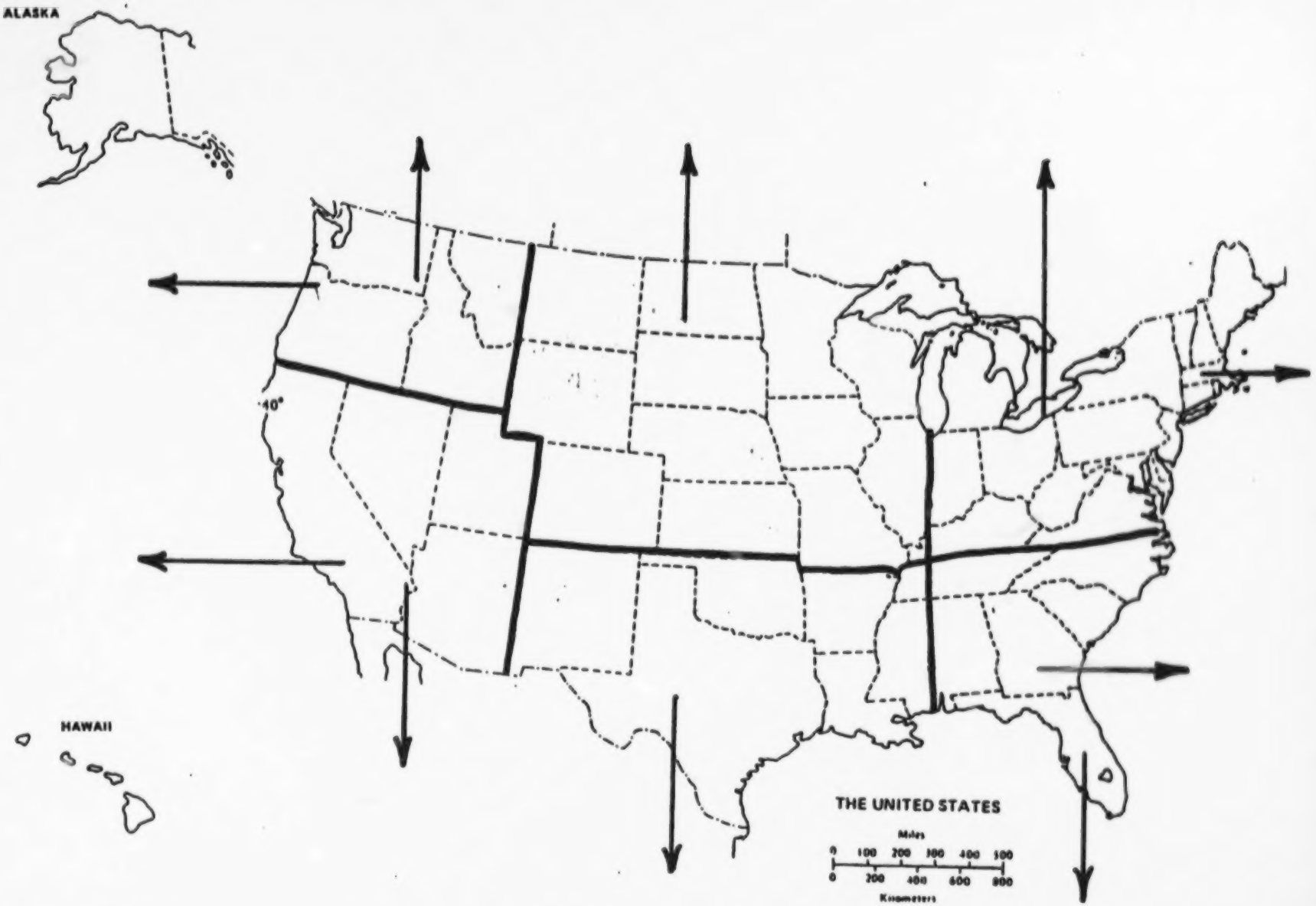
May - Disabled and Handicapped Persons

Summer - Political Platforms

Fall - Election Debates

- Draft Legislation

1992 January - Introduce Bills to Both Chambers


ALASKA
HAWAII
40°
THE UNITED STATES
Miles
0 100 200 300 400 500
0 200 400 600 800
Kilometers

Vocational-Technical-Occupational Education

H.R. 7 - "Applied Technology Education Amendments of 1989" 1990-95

Coordination of Programs
- State Human Investment Council
  - The Adult Education Act
  - The Carl D. Perkins Act
  - The Job Training Partnership Act
  - The Rehabilitation Act of 1973
  - The Wagner-Peyser Act

Amendments-Carl D. Perkins Applied Technology Education Act
- Model Centers for Applied Tech Ed for Older Individuals
- Applied Tech Ed and Occupational Information Data Systems
- Bilingual Applied Technology Education Training

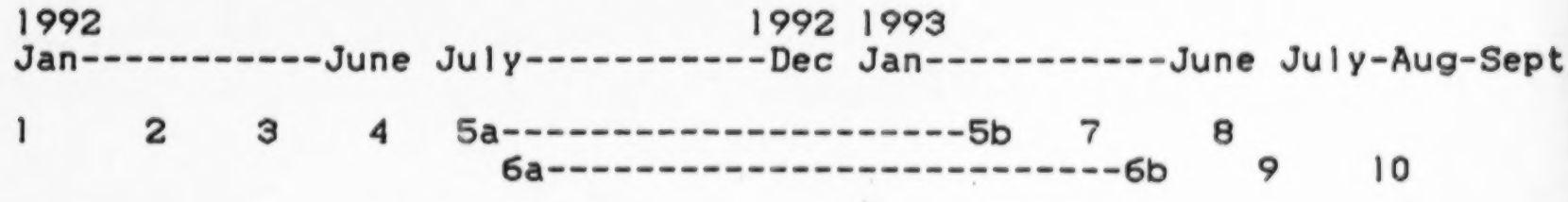
State Plans
State Improvement Plans - program review
State Administered Programs - sex equity
Equal Access to Special Populations

Special Programs
- Consumer and Homemaking Education
- Adult Training, Retraining and Employment Development
- Comprehensive Career Guidance and Counseling Programs
- Business-Labor-Education Partnership and Training
- Tech-Prep Education
- Improvement of Facilities and Acquisition of Equipment

National Programs
- Research and Development
  - National Diffusion Network
  - National Center for Applied Technology Education
  - Nat Network for Curr Coordination in Applied Tech
- National Assessment of Applied Technology Ed Programs
- Professional Development - Research and PD
- Cooperative Demonstration Programs
- Demonstration Centers for the Tr of Dislocated Workers
- Bus-Labor-Ed Committee for Dev of National Industry Competency Standards
- National Occupational Information Coordinating Committee
- Blue Ribbon Applied Technology Education Programs

Applied Tech Ed Opportunities for Am Indians/Alaska Natives

Preliminary Activities
Bills to Congress and Creation of Infrastruction



1. Identical bills introduced to Senate and House
2. Legislation passed
3. Regulations and guidelines drafted and disseminated
4. Reguest for Proposals (RFPs) distributed
5a. Regions begin to work on RDC proposals
6a. Regions begin to work on demonstration project proposals
5b. Regions submit RDC applications
6b. Regions submit demonstration project applications
7. OERI review of proposals for RDC.
8. Notification of RDC awards
9. OERI review of demonstration project applications
10. Notification of demonstration project awards

Developing Information Age Learning Paridigms (DIALP)

National Advisory Board

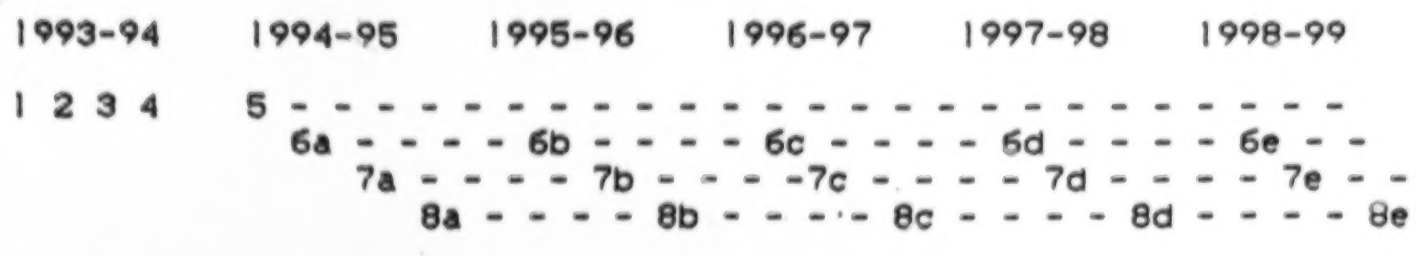
Office of Educational Research
and Improvement
US Department of Education

DIALP Program Director & Staff

Phase I Detailed Planning 1993-94	Phase II Partial Technological Deschooling Models 1994-95 to 1998-99	Phase III Learning Communities of the Future 1999-2000 to 2003-04
NE Region RDC		
DP 1		
DP 2		
DP 3		
DP 4		
NC Region		
DP 1		
DP 2		
DP 3		
DP 4		
NW Region		
DP 1		
DP 2		
DP 3		
DP 4		
SW Region		
DP 1		
DP 2		
DP 3		
DP 4		
SC Region		
DP 1		
DP 2		
DP 3		
DP 4		
SE Region		
DP 1		
DP 2		
DP 3		
DP 4		

Interdisciplinary Postgraduate Leadership Development (IPLD)

Partial Technological Deschooling Model (PTDM)



1 Brainstorming retreats, one east and one west of the Mississippi

2 Contemporary communication and information technologies

3 Submission of applications

4 Announcement of federal grants

5 RDC and DP projects get started, technical assistance provided

6 Retreats on contemporary communication and information technology

7 Formative evaluations 7e Summative Evaluation

8 Technology transfer conferences

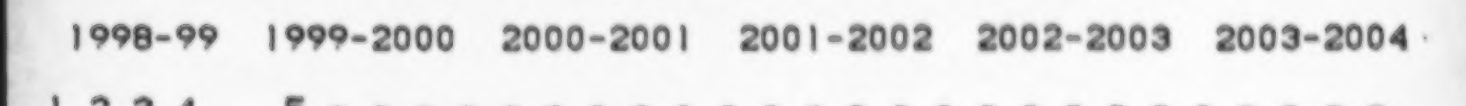
Brainstorming Retreat
Phase I - DIALP

Sun	Mon	Tue	Wed	Thu	Fri
	World 3	Business 6	Learning 9	LCF 12	PTDM 15
1	Health 4	Technology 7	Needs 10	Infrastructure 13	
Dream 2	5	8	11	12	

Major Focus of Activity or Event

1. Registration. Visit Disneyworld's EPCOT Center. Diagnosis of Learning Preferences and Leadership Styles. Simulations and Exhibits
2. Opening Session "Dreaming".
3. World Demographic, Social, & Economic Conditions.
4. Health & Human Services in the 21st Century.
5. Optional Groups, Simulations, and Exhibits.
6. International Business in the 21st Century.
7. Science Technology in an Advanced Technical Era.
8. Optional Groups, Simulations, and Exhibits.
9. Learning Tasks in an Advanced Technical Era.
10. The Learning Needs of Various Populations.
11. Optional Groups, Simulations, and Exhibits.
12. Visions of Learning Communities of the Future.
13. Infrastructure: Physical and Social.
14. Optional Groups, Simulations, and Exhibits.
15. Partial Technological Deschooling Models.

Learning Communities of the Future



1 Brainstorming retreats, one east and one west of the Mississippi

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8 Technology transfer conferences

CULTURAL DIVERSITY

A. Assessment of Service Area
   1. Demographic and Social Characteristics
   2. Country of Origin
   3. Attitudes, Beliefs, and Values
   4. Perception of America, State, and Community

B. Audit of Establishment (School, Social Service Agency)
   1. Mission Statement
   2. Governance
      a. Board Composition
      b. Policies
   3. Primary Programs
   4. Support Programs
   5. Staff (Hiring, Orientation, Inservice, Appraisal)

C. Preservice Preparation of Personnel
   1. Core General Education Requirements
   2. Major Field Requirements
   3. Professional Requirements

D. Inservice Activities
   1. Hiring Orientation
   2. Throughout the Year

E. Learning Experiences
   1. Curriculum (Single Discipline or Interdisciplinary)
      a. Social Sciences (History, Sociology, etc.)
      b. Languages
   2. Co-Curricular
   3. Parental Involvement

F. Developing a Plan of Action - moving from cultural destructiveness, blindness, and incompetence TO cultural competence, proficiency, and responsiveness.

G. International Trade (Occupational Preparation)
   1. Language
   2. Politics
   3. Values and Attitudes
   4. Law
   5. Education
   6. Religion
   7. Technology and Material Culture
   8. Social Organization

IMPORTANT ELEMENTS IN UNDERSTANDING OTHER COUNTRIES

LANGUAGE

Spoken language
Written language
Official language
Linguistic pluralism
Language hierarchy
International languages
Mass media

POLITICS

Nationalism
Sovereignty
Imperialism
Power
National interests
Ideologies
Political risk

VALUES AND ATTITUDES

Toward time
- achievement
- work
- wealth
- change
- scientific method
- risk taking

LAW

Common law
Code law
Foreign law
Home country law
Anti-trust policy
International law
Regulation

EDUCATION

Formal education
Vocational training
Primary education
Secondary education
Higher education
Litarery level
Human resources Development

RELIGION

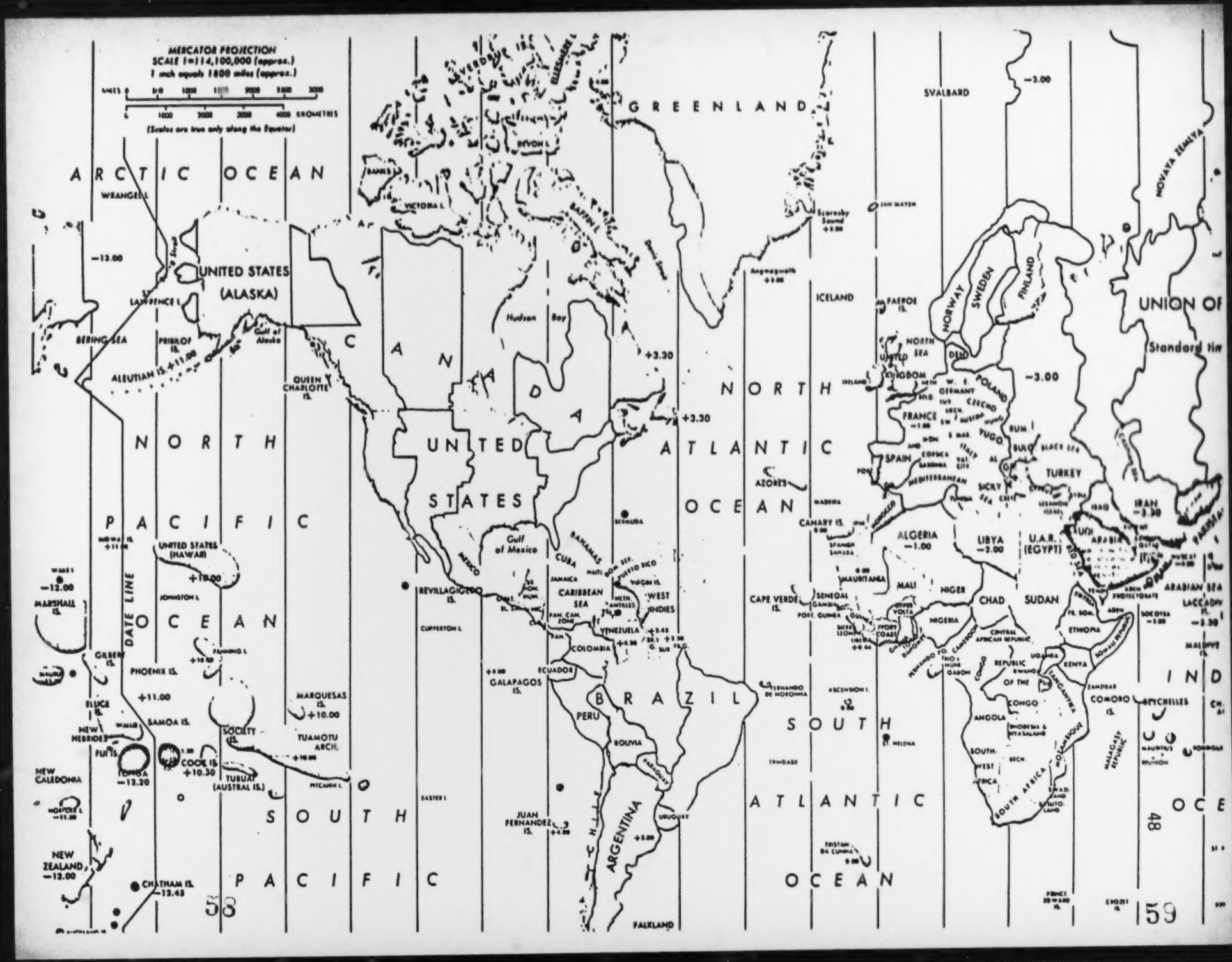
Sacred Objects
Philosophical system
Beliefs and norms
Prayer
Taboos
Holidays
Rituals

TECHNOLOGY AND MATERIAL CULTURE

Transportation
Energy systems
Tools and objects
Communications
Urbanization
Science
Invention

SOCIAL ORGANIZATION

Kinship
Social institutions
Authority structures
Interest groups
Social mobility
Sexual stratification
Status systems


MERCATOR PROJECTION
SCALE 1=114,100,000 (approx.)
1 inch equals 1800 miles (approx.)
(Scales are true only along the Equator)
ARCTIC OCEAN
GREENLAND
UNITED STATES (ALASKA)
CANADA
NORTH
PACIFIC
OCEAN
UNITED STATES
ATLANTIC
OCEAN
ICELAND
SVALBARD
NORWAY
SWEDEN
FINLAND
UNION OF
NORTH SEA
UNITED KINGDOM
FRANCE
SPAIN
TURKEY
ALGERIA
LIBYA
U.A.R. (EGYPT)
IRAN
ARABIAN SEA
INDIA
MALI
NIGER
CHAD
SUDAN
NIGERIA
ETHIOPIA
KENYA
CONGO
ANGOLA
SOUTH AFRICA
MADAGASCAR
DATE LINE
HAWAII
MARSHALL IS.
PHOENIX IS.
SAMOA IS.
FIJI IS.
NEW CALEDONIA
NEW ZEALAND
CHATHAM IS.
COOK IS.
TUBUAI (AUSTRAL IS.)
TUAMOTU ARCH.
MARQUESAS IS.
SOCIETY IS.
GALAPAGOS IS.
JUAN FERNANDEZ IS.
EASTER I.
CARIBBEAN SEA
GULF OF MEXICO
CUBA
JAMAICA
VENEZUELA
COLOMBIA
ECUADOR
PERU
BRAZIL
BOLIVIA
PARAGUAY
URUGUAY
ARGENTINA
SOUTH
ATLANTIC
OCEAN
FALKLAND
ST. HELENA
ASCENSION I.
TRISTAN DA CUNHA
AZORES
CANARY IS.
CAPE VERDE IS.
BERMUDA
BAHAMAS
PUERTO RICO
WEST INDIES
BEAUFORT SEA
BERING SEA
ALEUTIAN IS.
QUEEN CHARLOTTE IS.
Standard tim
58
59
48

Summary: Scope of Work

ORGANIZATIONAL DEVELOPMENT PLAN

Developing Information Age Learning Paradigms

1990-1993 1993-94 1994----------1999 1999----------2004

```
    1          2a------3-------------3-----4-------------4
               2b------3-------------3-----4-------------4

          5a                          5a
        5b-------5b--5b--5b--5b--5b--5b--5b--5b--5b
                   5c--5c--5c--5c--5c--5c--5c--5c--5c
```

1. Developing Consensus and Focus = Legislation
2. Detailed Planning
   a. Research and Development Centers
   b. Demonstration Projects
3. Partial Technological Deschooling Models
4. Learning Communities of the Future
5. An Interdisciplinary Postgraduate Leadership Program
   a. Brainstorming Retreats
   b. Contemporary Communication and Information Technology Retreats
   c. Technology Transfer Retreats

HUMAN RESOURCES DEVELOPMENT PLAN

Preparing Transformational Leaders

X------- Early 1990s--------X--------Late 1990s--------X----

1. Elementary and Secondary Education
2. Undergraduate Education
3. Graduate Education
4. An Interdisciplinary Postgraduate Diplomate Program

Developing Information Age Learning Paradigms (DIALP)

Cost In Millions

	OERI	RDCs	DPs	IPLD	TOTAL
Preliminary Activities					
1992-1993	1.0				1.0
Phase I - Detailed Planning					
1993-1994	1.5	1.2	1.2	.4	4.3
Phase II - PTDM					
1994-1995	2.0	12.0	24.0	.5	38.5
1995-1996	2.2	15.0	36.0	.6	53.8
1996-1997	2.4	18.0	48.0	.7	69.1
1997-1998	2.6	21.0	60.0	.8	84.4
1998-1999	2.8	24.0	72.0	.9	99.7
Phase III - LCF					
1999-2000	3.0	33.0	84.0	1.0	121.0
2000-2001	3.2	36.0	96.0	1.0	136.2
2001-2002	3.4	39.0	108.0	1.0	151.4
2002-2003	3.6	36.0	96.0	1.0	136.6
2003-2004	3.8	33.0	84.0	1.0	121.8
Phase IV - Reporting and Dissemination					
2004-2005	4.0				4.0
Total					1,021.8